

**Table A.** Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)  |
|--------------------------------|---|--|
| Heritage Resources             | Heritage Resources will be designated on the ground prior to implementation of all project activities. Protect Heritage Resources that have been identified on the ground with flagging as well as those identified on maps provided by the District Archaeologist.   | District Archaeologist, Layout/Contract Specialist, and Sale Administrator |
| Heritage Resources             | Management of Heritage Resources: Protect all Heritage Resources with flagged control areas. Utilize directional felling methods as appropriate to protect heritage resources. Buffer zones may be designated to ensure added protection. Sale Administrator, Contract Inspector, and/or Archaeologist will walk all sites with purchaser, contractor, or force account staff prior to start of project activities.   | District Archaeologist, Layout/Contract Specialist, and Sale Administrator |
| Heritage Resources             | Management of Linear Heritage Resources: Directionally fell trees parallel to or away from linear Heritage Resources (trails, ditches, roads etc.); existing breaches will be used whenever possible; if necessary, new breaches will be designated by the District Archaeologist; and isolated trees inside of linear Heritage Resource features may be felled on a case-by-case basis and with on-the-ground approval of the District Archaeologist.  | District Archaeologist, Layout/Contract Specialist, and Sale Administrator |
| Heritage Resources             | <p>Guidelines 2.1(a) for approved Standard Protection Measures established in the 2018 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Linear sites (e.g., historic trails, roads, railroad grades, ditches) may be crossed or breached by equipment in areas where their features or characteristics clearly lack historic integrity (i.e., where those portions do not contribute to site eligibility or values).</p> <p>(1) Crossings are not to be made at the points of origin, intersection, or terminus of linear site features.</p> <p>(2) Crossings are to be made perpendicular to linear site features.</p> <p>(3) The number of crossings is to be minimized by project and amongst multiple projects in the same general location.</p> <p>(4) The remainder of the linear site is to be avoided, and traffic is to be clearly routed through designated crossings.</p> | District Archaeologist, layout/Contract Specialist, and Sale Administrator |
| Heritage Resources             | <p>Guidelines 2.1(b) for approved Standard Protection Measures established in the 2018 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Accumulation of sufficient snow over archaeological deposits or historic features to prevent surface and</p>   | District Archaeologist, layout/Contract Specialist, and Sale Administrator |

| Potential Resource(s) Affected | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)  |
|--------------------------------|---|--|
|                                | <p>subsurface impacts. Undertaking activities may be implemented over snow cover on historic properties under the following conditions:</p> <p>(1) The cover must have at least 12 inches depth of compacted snow or ice throughout the duration of undertaking activities on sites.</p> <p>(2) All concentrated work areas (e.g., landings, skid trails, turnarounds, and processing equipment sites) shall be located prior to snow accumulation and outside historic property boundaries.</p>  |  |
| Heritage Resources             | <p>Guidelines 2.1(c) for approved Standard Protection Measures established in the 2018 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Placement of foreign, non-archaeological material (e.g., padding or filter cloth) within transportation corridors (e.g., designated roads or trails, campground loops, boat ramps, etc.) over archaeological deposits or historic features to prevent surface and subsurface impacts caused by vehicles or equipment. Such foreign material may be utilized on historic properties under the following conditions:</p> <p>(1) Engineering will design the foreign material depth to acceptable professional standards;</p> <p>(2) Engineering will design the foreign material use to assure that there will be no surface or subsurface impacts to archaeological deposits or historic features;</p> <p>(3) The foreign material must be easily distinguished from underlying archaeological deposits or historic features;</p> <p>(4) The remainder of the archaeological site or historic feature is to be avoided, and traffic is to be clearly routed across the foreign fill material;</p> <p>(5) The foreign material must be removable should research or other heritage need require access to the archaeological deposit or historic feature at a later date; and</p> <p>(6) Indian tribe or other public concerns about the use of the foreign material will be addressed prior to use.</p> | District Archaeologist, Layout/Contract Specialist, and Sale Administrator |
| Heritage Resources             | Guidelines 2.2(a) for approved Standard Protection Measures established in the 2018 Regional Programmatic   | District Archaeologist, Layout/Contract                                    |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected | Management Requirements Designed to Reduce or Prevent Adverse Effects  | Responsible Person(s)  |
|--------------------------------|--|--|
|                                | <p>Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Felling and removal of hazard, salvage, and other trees within historic properties under the following conditions:</p> <p>(1) Trees may be limbed or topped to prevent soil gouging during felling;</p> <p>(2) Felled trees may be removed using only the following techniques: hand bucking, including use of chain saws, and hand carrying, rubber tired loader, crane/self-loader, helicopter, or other non-disturbing, HPM-approved methods;</p> <p>(3) Equipment operators shall be briefed on the need to reduce ground disturbances (e.g., minimizing turns);</p> <p>(4) No skidding nor tracked equipment shall be allowed within historic property boundaries; and</p> <p>(5) Where monitoring is a condition of approval, its requirements or scheduling procedures should be included in the written approval.</p>   | Specialist, and Sale Administrator   |
| Heritage Resources             | <p>Guidelines 2.2(b) for approved Standard Protection Measures established in the 2018 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>For fire, and hazardous fuels and vegetation management projects, HPM/DHPS , in conjunction with fuels, vegetation management, or fire specialists as necessary, shall develop treatment measures for <i>at risk</i> historic properties (as defined in SHPO approved Region 5 modules and agreements) designed to eliminate or reduce potential adverse effects to the extent practicable by utilizing methods that minimize surface disturbance, and/or by planning project activities in previously disturbed areas or areas lacking cultural features.</p> <p>(1) The following standard protection measures apply to fire, hazardous fuels, and vegetation management projects:</p> <p>(I) Mechanically treated (crushed/cut) brush or downed woody material may be removed from historic properties by hand, through the use of off-site equipment, or by rubber-tired equipment approved by HPMs or qualified Heritage Program staff. Ground disturbance shall be minimized to the extent practicable during such removals.</p> <p>(J) Woody material may be chipped within the boundaries of historic properties so long as the staging of chipping</p> | District Archaeologist, Layout/Contract Specialist, and Sale Administrator |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)  |
|--------------------------------|---|--|
|                                | <p>equipment on-site does not affect historic properties and staging areas are specifically approved by HPMs or qualified Heritage Program staff.</p> <p>(K) HPMs shall approve the use of tracked equipment to remove brush or woody material from within specifically identified areas of site boundaries under prescribed measures designed to prevent or minimize effects. Vegetative or other protective padding may be used in conjunction with HPM authorization of certain equipment types within site boundaries.</p>  |  |
| Heritage Resources             | Logging Camps: Proposed logging camps and other staging areas need to be agreed upon with the District Archaeologist prior to use.  | District Archaeologist, Layout/Contract Specialist, and Sale Administrator                   |
| Lands                          | Protect land survey signs and monuments, even if burned, or laying on the ground.   | Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Public Service Officer |
| Lands                          | Notify private property owners within the Camp Fire area of initial logging schedule.   | Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Public Service Officer |
| Minerals                       | Notify mining claimants within the Camp Fire Area of impending harvest schedule once it is known.   | Minerals Officer and Sale Administrator  |
| Rare Plants - Conservation     | <p>Botany Controlled Areas (CAs) have been established for the protection of rare plants.</p> <ul style="list-style-type: none"> <li>Controlled Areas for Butte County fritillary and Butte County morning-glory: NO GROUND DISTURBANCE and NO BURN PILES allowed within these small Controlled Areas. <ul style="list-style-type: none"> <li>There are four of these small CAs, three for Butte County fritillary and one for Butte County morning-glory, within the salvage units near Paradise Lake.</li> </ul> </li> <li>Controlled Areas for serpentine vegetation and associated rare plants. STAY OUT. <ul style="list-style-type: none"> <li>There are two of these large CAs along the edges, but outside of, two salvage units. One of these CAs also protects Proposed Special Interest Area characteristics.</li> <li>In certain situations the project implantation team may consult with the botanist regarding potential small impacts within these Controlled Areas.</li> </ul> </li> </ul> | Botanist, Project Implementation Teams, Contract Administrators                              |
| Rare Plants - Conservation     | <p>Botany Controlled Areas will be shown on the project implementation maps, and be flagged on the ground by red-and-black-stripe and blue-and-black-stripe flagging always tied together.</p> <ul style="list-style-type: none"> <li>Contact the District Botanist prior to project</li> </ul>   | Botanist, Implementation Team, and Contract Administrator                                    |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected                 | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)   |
|--|---|---|
|  | <p>implementation to ensure that flagging is in place and refreshed as necessary.</p> <ul style="list-style-type: none"> <li>Any new locations of rare plants found during project layout and implementation should be designated as CAs and be managed as itemized above.</li> </ul>   |   |
| Non-native Invasive Plants (NNIP) - Prevention | Ensure that all plant material and fill material used for erosion control and/or road maintenance is free of NNIP, including straw, mulch, gravel, and rock ( <i>certified weed-free</i> ).   | Botanist, Implementation Team, and Contract Administrator                                   |
| Non-native Invasive Plants (NNIP) - Prevention | Clean all off-road equipment entering the project area if it may be coming from areas infested with nonnative invasive plants (NNIP).   | Botanist, Fuels Officer, Project Implementation Teams, Contract Administrators              |
| Non-native Invasive Plants (NNIP) - Prevention | <p>To the greatest extent feasible keep all equipment, vehicles, and supplies out of areas of known NNIP infestations, including any NNIP infestations along access routes and new infestations that may be discovered during project implementation. NNIP infestations may sometimes be flagged with bright orange “noxious weed” flagging.</p> <ul style="list-style-type: none"> <li>Any equipment, vehicles, and supplies that do come in contact with NNIP infestations (plants or the ground close to them) during project implementation should be thoroughly cleaned of dirt, mud, and plant debris before entering any un-infested project area.</li> <li>Hand cutting of broom plants and placement of burn piles on top of NNIP infestations is encouraged.</li> <li>New infestations should be mapped and reported to the District Botanist.</li> </ul> | Botanist, Fuels Officer, Project Implementation Teams, Contract Administrators              |
| Non-native Invasive Plants (NNIP) - Prevention | <p>Members of the project implementation teams (layout crew, contract administrator, etc.) should watch for and be able to recognize NNIP.</p> <ul style="list-style-type: none"> <li>As time allows, pull some or all of NNIP encountered during project activities (avoiding archaeology controlled areas).</li> <li>New infestations should be mapped and reported to the District Botanist, and flagged and avoided.</li> </ul>   | Botanist, Project Implementation Teams, Contract Administrators                             |
| Non-native Invasive Plants (NNIP) - Prevention | <p>Monitor areas of project related ground disturbance (e.g. skid trails, temp roads, landings, trails, etc.) for NNIP for up to 10 years following project implementation.</p> <ul style="list-style-type: none"> <li>As funding becomes available, new and old infestations of NNIP should be pulled or otherwise treated.</li> <li>New infestations should be mapped and reported to the District Botanist.</li> </ul>   | Botanist and Implementation Team  |
| Recreation and Public Use                      | Provide for public safety and education by posting signs to inform public of project activities. Whenever possible, post notices on PNF website prior to treatments. Keep information current.  | Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Recreation Specialist |
| Recreation and Public Use                      | Protect all improvements including directional and informational signs, barriers, etc. If any barriers (including boulders) or improvements are damaged or removed to   | Layout/Contract Specialist, Fuels Specialist and Recreation                                 |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)   |
|--------------------------------|---|---|
|                                | during activities, they must be replaced and re-installed in the same location and manner immediately following vegetation management operations.   | Specialist  |
| Recreation and Public Use      | Recreation areas (designated roads, trails, trailheads, staging areas, and dispersed camp sites) may be temporarily closed to provide for public safety during active tree removal operations, but would otherwise remain open unless specifically agreed to by the Recreation Specialist.                                      | Layout/Contract Specialist, Fuels Specialist and Recreation Specialist                      |
| Recreation and Public Use      | Skid trails shall be treated to prevent post-harvest use by any off-highway vehicle. This may be by slash scatter, water barring, or other method agreed to by the Recreation Specialist. The access point shall be closed in a manner that is effective to keep OHV use from occurring.  | Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Recreation Specialist |
| Recreation and Public Use      | When new landings are developed, locate them in coordination with Recreation Specialist. New landings shall be effectively closed and decommissioned.   | Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Recreation Specialist |
| Recreation and Public Use      | Barricade, with local and natural material, all skid trails that directly intersect a forest road or trail. This is to deter off-road and unapproved use of skid trails for motorized vehicles and new dispersed campsites.   | Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Recreation Specialist |
| Scenery Resources              | Roadside stumps that are visible within 50 feet of the Coutolenc Road should be cut to within eight inches of the ground (or as low as possible considering obstacles and safety) and the cut should slope away from travelway.   | Contract Specialist, Sale Administrator, and Fuels Implementation Team                      |
| Silviculture                   | Lopping and Scattering: Slash shall be lopped and scattered away from the bole of residual leave trees so that it lies outside of the drip line.  | Contract Specialist and Sale Administrator  |
| Silviculture                   | Piling and burning: Piles shall be placed away from residual leave trees to avoid being scorched during burning. Piles cannot be located on or against stumps and logs.   | Contract Specialist and Sale Administrator  |
| Silviculture                   | Leaner's/Hang-ups - No created slash shall be left suspended by, or lean against, a leave tree; whether it is dead or alive.  | Contract Specialist and Sale Administrator  |
| Silviculture                   | Protection of specially-identified trees (i.e., location, survey marker, or bearing trees; proven rust resistant sugar pine trees; or genetically superior tree of any species). They are usually identified with various types of metal tags.  | Contract Specialist and Sale Administrator  |
| Fire and Fuels                 | Activity Generated Slash adjacent to FS roads. Pile all activity generated slash 100' depth of project area, and covered with waterproof covering for burning during winter months.<br><br>Piling and Burning Landings: Landings created for optimal winter weather burning. Waterproof covering on multiple locations of pile. | Contract Specialist, Sale Administrator, and Fuels Implementation Team                      |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected                     | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)   |
|--|---|---|
|  | Landing Temp Roads: Landings created for burning need to have roads accessible for fire engine access during ignition and monitoring phases.<br>Landing Placement: Landing can scorch and burn live trees 50-100 feet in distance.<br>Landing Fire Lines: 6-10 foot fire line created around each landing.  |   |
| Transportation System, Road Maintenance and Safety | Protect all improvements along roadways including road surface, signs, ditches, and drainage structures.  | Maintenance Engineer, Contract Specialist, Sale Administrator                               |
| Transportation System, Road Maintenance and Safety | Maintain haul roads before, during, and after use. Place emphasis on post haul maintenance of road surface, and the surface drainage crossings to reduce erosion potential. Clean all activity debris from ditches and culvert inlets. Use Timber Sale contract road maintenance specifications T-802 Ditch Cleaning, T-803 Surface Blading, T-805 Drainage Structures, and T-809 Waterbars (or something comparable for service or stewardship contracts). | Maintenance Engineer, Contract Specialist, Sale Administrator and Fuels Implementation Team |
| Watershed, Soils, and Aquatic Resources            | See table below.  | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                       |

| Stream Type  | Riparian Conservation Area (RCA) Widths | Equipment Exclusion Zone (EEZ) for Mechanical Thinning via Salvage, Roadside Hazard Tree Removal, and Grapple Pile |            | Mastication | Underburn* | Hand Cut** | Minimum Distance to Burn Piles |
|--|---|--|------------|-------------|------------|------------|--------------------------------|
|  |   | Slope <35%   | Slope >35% |             |            |            |                                |
| Perennial streams  | 300 feet                                | 100 feet   | Excluded   | 50 feet     | 150 feet   | No buffer  | 25 feet                        |
| Intermittent streams   | 150 feet                                | 100 feet   | Excluded   | 50 feet     | 150 feet   | No buffer  | 25 feet                        |
| Ephemeral streams  | 150 feet                                | 25 feet  | Excluded   | 25 feet     | 150 feet   | No buffer  | 25 feet                        |
| Special Aquatic Features (Reservoirs, wetlands, fens, and springs) | 300 feet                                | 100 feet   | Excluded   | 50 feet     | 150 feet   | Perimeter  | 25 feet                        |
| Riparian Features: dry meadows, seasonal wetlands                  | 150 feet                                | 50 feet  | Excluded   | 25 feet     | 150 feet   | Perimeter  | 25 feet                        |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected   | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)   |
|--|---|---|
| <p>* Prescribed burning would be allowed within RCAs, but there would be no ignitions in riparian vegetation. Fire may back through this zone.</p> <p>**May hand cut within RCA feature but don't cut riparian vegetation. Don't cut vegetation that provides stream bank stabilization. Adhere to the minimum distance for burn piles. No hand cutting within special aquatic features and riparian features unless marked by hydrologist and/or biologist.</p> |   |   |
| Watershed, Soils and Aquatic Resources   | <p>Hazard trees and salvage trees within the equipment exclusion zone can be felled. Fell them away from the channel and other aquatic features to minimize disturbance of riparian vegetation. If feasible try to fell trees at a slight angle and not perpendicular to the stream.</p> <p>Felled trees within the RCA may be removed by end-lining. End-lining is not permitted through riparian vegetation. Grooves and bare soil created by end-lining will be mitigated with hand-built water bars and/or slash placement.</p> <p>Removal of trees across a perennial, intermittent or ephemeral stream will require full suspension across the entire channel. If full suspension cannot be obtained then the portion of the log that cannot be suspended will be left in the equipment exclusion zone.</p> | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist             |
| Watershed, Soils, and Aquatic Resources  | <p>If effective soil cover is below the desired level of 50 percent soil cover along streams then leave slash material to increase soil cover. <b>When cutting trees lop and scatter broken tops and limbs within 1 tree length of any stream.</b> If feasible try to fell trees at a slight angle and not perpendicular to the stream.</p> <p>Effective soil cover could include organic surface materials (&gt; ½ inches thick), woody material in contact with the soil (&gt; ¼ inches thick in diameter), living vegetation, and rock fragments (&gt; ¾ inches thick).</p>  | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist             |
| Watershed, Soils, and Aquatic Resources  | <p>Limit ground-based equipment to slopes less than 35% within all RCAs.</p> <p>To reduce ground disturbance created by equipment within RCAs, vary the routes the equipment uses and minimize turning of equipment.</p>  | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist             |
| Watershed, Soils, and Aquatic Resources  | Within RCAs having slopes less than 35%, and outside of the equipment exclusion zone, rubber-tired skidders may enter to retrieve logs but are limited to 1-2 passes over the same piece of ground.   | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist             |
| Watershed, Soils, and Aquatic Resources  | No new landings or roads will be located within RCAs. Consult with a hydrologist before using an existing skid trail, landing, or road located within an RCA.   | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist             |
| Watershed, Soils, and Aquatic Resources  | Mechanical site preparation for reforestation may occur within RCAs (on slopes less than 35%), outside of the equipment exclusion zone, when such operations do not result in detrimental soil compaction, meet soil moisture requirements, and maintain minimum effective soil cover   | Planning Forester, Prep Forester, Sale Administrator, Hydrologist, Soil Scientist |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.



| Potential Resource(s) Affected          | Management Requirements Designed to Reduce or Prevent Adverse Effects  | Responsible Person(s)  |
|---|--|--|
|   | (ESC) of 50% when feasible.  |  |
| Watershed, Soils, and Aquatic Resources | Designated skid trails crossing on ephemeral stream channels may be approved for access to otherwise inaccessible areas, but only upon consultation with a hydrologist.  | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                                    |
| Watershed, Soils, and Aquatic Resources | Place rock on roads at stream crossings and segments within identified RCAs to reduce the impact of sediment delivery to associated stream courses. Place rock, slash, or certified NNIP free mulch at the outlets of rolling dips and/or waterbars to dissipate water where identified by road engineer and soil scientist, and/or hydrologist.   | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                                    |
| Watershed, Soils, and Aquatic Resources | Water Source Use: Water sources shall be approved prior to use.  | Planning Forester, Prep Forester, Sale Administrator, Road Maintenance Engineer, and Hydrologist         |
| Watershed, Soils, and Aquatic Resources | <p><b>Check with the hydrologist on the latest water drafting streamflow criteria.</b></p> <p>Emergency Exemptions for Water Drafting Streamflow Criteria (February 28, 2014).</p> <p>For fish-bearing streams—<br/>The water drafting rate should not exceed 350 gallons per minute for streamflow greater than or equal to 4.0 cubic feet per second (cfs);<br/>Below 4.0 cfs, drafting rates should not exceed 20% of surface flows;<br/>Water drafting should cease when bypass surface flows drop below 1.5 cfs.</p> <p>For non-fish-bearing streams—<br/>The water drafting rate should not exceed 350 gallons per minute for streamflow greater than or equal to 2.0 cfs;<br/>Drafting rates should not exceed 50% of surface flows;<br/>Water drafting should cease when bypass surfaced flows drop below 10 gallons per minute.</p> | Sale Administrator and Hydrologist   |
| Watershed, Soils, and Aquatic Resources | Water Source Use: Each load of water drafted shall be documented in terms of gallons per project per truck per day and a written report provided to the Public Services Officer every two weeks.   | Planning Forester, Prep Forester, Sale Administrator, Road Maintenance Engineer, Public Services Officer |
| Watershed, Soils, and Aquatic Resources | Water Source Use: Armor road approaches as necessary from the end of the approach nearest a stream for a minimum of 50 feet, or to the nearest drainage structure.   | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                                    |
| Watershed, Soils, and Aquatic Resources | Water Source Use: Where overflow runoff from water trucks or storage tanks may enter the stream, effective erosion control devices shall be installed.   | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                                    |
| Watershed, Soils, and Aquatic           | Water Source Use: All water-drafting vehicles shall be checked routinely and shall be repaired as necessary to   | Planning Forester, Prep Forester, Sale   |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected          | Management Requirements Designed to Reduce or Prevent Adverse Effects  | Responsible Person(s)   |
|---|--|---|
| Resources                               | prevent leaks of petroleum products from entering RCAs.  | Administrator, and Hydrologist  |
| Watershed, Soils, and Aquatic Resources | Water Source Use: Water-drafting vehicles shall contain petroleum spill kits. Dispose of absorbent pads according to the Hazardous Response Plan.  | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                   |
| Watershed, Soils, and Aquatic Resources | <p>Water Source Use: Survey all proposed drafting locations for sensitive and listed amphibians and receive approval from a biologist prior to use. Use drafting devices with 2-mm or less screening and place hose intake into bucket in the deepest part of the pool. Use a low velocity water pump and do not pump ponds to low levels beyond which they cannot recover quickly (approximately one hour).</p> <p>If a sensitive or listed amphibian is sighted within the project area, cease operations in the sighting area, and inform a Forest Service aquatic biologist of the sighting immediately.</p>   | Planning Forester, Prep Forester, Sale Administrator, Aquatic Biologist and Hydrologist |
| Watershed, Soils, and Aquatic Resources | <p>Limit tractor skidding to less than 35 percent slopes unless a watershed specialist evaluates operations on the steeper slopes. Tractor skidding may occur on slopes greater than 35 percent only in short pitches less than 200 feet in distance. Where skidding occurs on slopes greater than 15 percent and effective soil cover off of skid trails is less than 50 percent, scatter slash on skid trails to achieve at least 50 percent effective soil cover.</p> <p>Effective soil cover could include organic surface materials (&gt; ½ inches thick), woody material in contact with the soil (&gt; ¼ inches thick in diameter), living vegetation, and rock fragments (&gt; ¾ inches thick). Use of weed free straw, wood chips, or mulch may be used where on-site material is insufficient.</p> | Planning Forester, Prep Forester, Sale Administrator, Soil Scientist, and Hydrologist   |
| Watershed, Soils, and Aquatic Resources | When possible, use existing skid trails and landings except where this could cause unacceptable resource damage. Limit new and existing skid trails, temp roads, and landings to less than 15 percent of the unit area. Space skid trails at least 75 feet apart.  | Planning Forester, Prep Forester, Sale Administrator, Soil Scientist, and Hydrologist   |
| Watershed, Soils, and Aquatic Resources | Allow mechanical operations only when soil moisture conditions are such that compaction, gulying, and/or rutting will be minimal. Conduct ground based harvest operations when soil is dry; that is, in the spring when soil moisture in the upper 8 inches is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. In the summer and early fall after storm event(s) when soil moisture between 2-8 inches in depth is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. Off of designated skid trails, limit all equipment passes over the same piece of ground to reduce the potential for adverse soil compaction.  | Sale Administrator, COR, Soil Scientist, and Hydrologist                                |
| Watershed, Soils,                       | Log Landings: re-use log landings to the extent feasible.  | Planning Forester, Prep   |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected          | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)   |
|---|---|---|
| and Aquatic Resources                   | Limit new landings to ½ acre in size.   | Forester, Sale Administrator, Soil Scientist, and Hydrologist                                     |
| Watershed, Soils, and Aquatic Resources | Recommended spacing for cross drainage spacing on skid trail and temporary roads:<br><br>Slope Gradient Cross Drain Spacing<br>1-6% 250'<br>7-9% 150'<br>10-14% 125'<br>15-20% 60'<br>21-40% 30'  | Sale Administrator, Soil Scientist, Hydrologist,  |
| Watershed, Soils, and Aquatic Resources | To reduce the potential for adverse cumulative watershed effects, implement state certified Best Management Practices (BMPs). Site specific BMPs applicable to this project (located in project record file) include BMP 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.19, 1.20, 1.21, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 2.11, 5.1, 5.2, 5.4, and 5.6.  | Planning Forester, Prep Forester, Sale Administrator, and Hydrologist                             |
| Wildlife                                | During marking, retain suspected or known wildlife-inhabited trees (eg. nest trees, roosts, etc.), unless they pose an imminent safety hazard that cannot be mitigated through other means; if removal is necessary coordinate with the wildlife biologist. Any wildlife-inhabited trees retained during marking should be incorporated into snag retention clumps where necessary to meet the general average snag retention guideline.  | Wildlife Biologist, Layout/Contract Specialist, Sale Administrator, and Fuels Implementation Team |
| Wildlife                                | Retain the largest size classes of existing large woody debris to a rate of approximately 15 tons/acre in treatment units. Logs greater than 12" diameter at the mid-point and at least 20 feet long will be used to meet the criteria. Where existing conditions do not meet or exceed these levels, the requirement is to retain as close to these levels as feasible. Avoid disturbance of existing large logs during treatments to the extent practicable, and avoid piling logs used to meet the standard during site preparation in tree planting areas. In areas deficient in large woody material, cull logs would be left at the stump where possible. | Wildlife Biologist, Layout/Contract Specialist, Sale Administrator, and Fuels Implementation Team |
| Wildlife                                | Where activity generated vegetation is piled, retain an average of 1 pile per acre; preferentially retain piles that are in close proximity to the following: large live trees (>24"), patches of live trees, large oaks (>24"), large snags (>24"), snag patches, and RCAs.  | Wildlife Biologist, Layout/Contract Specialist, Sale Administrator, and Fuels Implementation Team |
| Wildlife                                | For California spotted owl PACs: Maintain a limited operating period (LOP), prohibiting vegetation treatments within approximately ¼ mile of the activity center during the breeding season (March 1 through August 15), unless surveys confirm that California spotted owls are not nesting. Prior to implementing activities within or adjacent to a California spotted owl PAC, conduct surveys to establish or confirm the location of the nest or activity   | Wildlife Biologist, Layout/Contract Specialist, Sale Administrator, and Fuels Implementation Team |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.

| Potential Resource(s) Affected | Management Requirements Designed to Reduce or Prevent Adverse Effects   | Responsible Person(s)  |
|--------------------------------|---|--|
|                                | center.   |  |
| Wildlife                       | Retain buffers around existing hardwood trees by not planting conifers or piling vegetation within 20 feet of the edge of hardwood crowns.  | Wildlife Biologist, Contract Specialist, Sale Administrator, and Fuels Implementation Team |
| Wildlife                       | Report all mine openings to the wildlife biologist that are identified during project layout. Coordinate any marking of trees and all activities within 500 feet of mine openings.  | Wildlife Biologist, Contract Specialist, Sale Administrator, and Fuels Implementation Team |
| Wildlife                       | Incidental detections of federally-listed and sensitive species prior to or during project implementation will be reported to the District Wildlife Biologist for protection in accordance with management direction for the Tahoe National Forest. | Wildlife Biologist, Contract Specialist, Sale Administrator, and Fuels Implementation Team |

Table A. Management requirements to reduce or prevent adverse effects by Magalia Fire Salvage Project.